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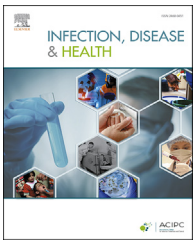

RESEARCH PAPER

# A survey of acute care clinicians' views on factors influencing hand hygiene practice and actions to improve hand hygiene compliance

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**Abstract** *Introduction:* Hand hygiene best practice compliance rates are low in acute care settings despite investment in strategies in the acute care setting to improve hand hygiene practice. Knowledge of local influences such as health professionals' views on current strategies and influential factors is required to develop effective and sustainable interventions.
*Methods:* A single-centre cross-sectional survey was conducted to identify the views of 300 randomly sampled acute care health professionals from a tertiary referral teaching hospital, on the factors that they believe influence hand hygiene practice, and their views on strategies to improve compliance. Data were collected using a 19-question self-administered questionnaire and were analysed using descriptive statistics and chi-square tests to analyse differences between the clinical disciplines.
*Results:* The sample response rate was 39% (n = 118). Doctors were significantly less likely to report receiving hand hygiene education ($p < 0.01$) or familiarity with the five moments for hand hygiene ($p < 0.01$). Overall, respondents regarded organisational strategies more favourably than clinician or patient-focused strategies. Medical staff were less likely to agree with clinical area hand hygiene performance feedback ($p = 0.03$) while nursing staff were more likely to be agreeable to regular hand hygiene assessment ($p = 0.02$).

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*Conclusion:* Hand hygiene education may require targeting of particular groups of health professionals to ensure that all clinical disciplines receive hand hygiene education. Hand hygiene strategies should be based on local needs and take into account contextual factors.


**Highlights**

- Acute care clinicians are receptive to a range of system and practitioner-focused strategies to improve compliance, including defining hand hygiene lapses as a healthcare error.
- When designing and implementing hand hygiene improvement strategies, the views of staff from different clinical disciplines should be taken into account.



## Introduction

Improving hand hygiene best practice is recognised worldwide as a key strategy to reduce hospital-related infections acquired through cross-infection of micro-organisms [1,2]. Non-compliance with hand hygiene best practice guidelines by health care professionals is a persistent problem worldwide despite costly government and local initiatives focused on improving practice [3]. The World Health Organisation reports that for every 100 hospitalised patients in a developed country, seven will contract a healthcare acquired infection (HCAI) [6]. Approximately 200,000 HCAIs are documented each year in Australia [4]. The consequences of HCAIs are prolonged hospital stays, further morbidity and an increased financial burden on health care systems [5,6].

A number of strategies and programmes have been developed to improve hand hygiene practice [7]. These are mainly based on the World Health Organisation Five Moments for Hand Hygiene and have had varying rates of success [3,7]. A Cochrane review has highlighted the lack of methodologically robust research to inform the choice of interventions to improve hand hygiene in clinical settings. In particular, single interventions targeting clinical staff based on brief, "one off" education sessions are unlikely to be successful, even in the short-term [7] and there is a lack of good quality evidence to support the long-term effectiveness of many types of single and multi-faceted hand hygiene improvement approaches [8,9,10,11].

The lack of knowledge about health care professionals' views of hand hygiene strategies and the organisational factors that may impact on hand hygiene behaviour, hampers the development of effective and sustainable interventions' [12,13,14,15]. Hand hygiene behaviour and compliance is, like other areas of care, influenced by health care professionals' individual beliefs and attitudes [16,17]. For example, one study has found that nurses' hand hygiene practices are largely influenced by perceptions of their own risk of infection from patients [16]. Changing practice in line with evidence-based guidelines also involves understanding perceptions staff have about the broader organisational and workplace culture's values and expectations about practice and behaviours [18,19,20]. Attempts to improve hand hygiene compliance in isolation from identifying and addressing health professionals' views and perceptions about influential factors on practices will therefore have limited long-term success [16,21].

Recently, there has been discussion among patient safety experts who have argued that poor hand hygiene practice is largely attributable to individual practitioners' failure rather than a systems failure [22]. The notion of individual responsibility rather than system responsibility for lapses in hand hygiene and in other best practices, has fallen out of favour in recent years [23]. For example, the World Alliance for Patient Safety initiatives to promote best practice hand hygiene in hospital settings is focused on addressing systems rather than individual behaviour [24]. However, there is some support for approaches to improving patient safety initiatives that include the concept of personal accountability. Some have argued that these approaches are now needed given that systems-focused initiatives have not been maximally effective in improving best practice in a number of areas of clinical care [25] as well as in efforts to improve hand hygiene [22].

Our survey aimed to address the research gap relating to understanding health care professionals' views on: 1) the individual and workplace cultural factors that they believe influence hand hygiene behaviour in clinical practice; and 2) current and novel strategies to improve hand hygiene including those that focus on the role of the individual.

## Methods

### Design

A cross-sectional self-administered survey.

### Study population

All clinical staff on the hospital payroll, aged over 16 years and directly involved in patient care and employed at the study site (a 350-bed tertiary referral teaching hospital in